CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. 95-127
NPDES PERMIT No. CA0037885

WASTE DISCHARGE REQUIREMENTS FOR:
CONTRA COSTA COUNTY SANITATION DISTRICT No. 5,
PORT COSTA,
CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that;

1. The Contra Costa County Sanitation District No. 5 (hereinafter called the discharger), submitted a report of waste discharge dated January 3, 1995, for the reissuance of waste discharge requirements and a permit to discharge under the National Pollutant Discharge Elimination System (NPDES).

2. The Discharger presently discharges an annual average flow of 0.01 million gallons per day (MGD) from its recirculating sand filter bed secondary treatment plant which has a dry weather design treatment capacity of 0.033 MGD. The plant provides secondary treatment of primarily domestic wastewater, and a lesser amount of commercial wastewater, from the community of Port Costa, which currently has a population of about 350 people. The treated effluent is discharged into Carquinez Strait, a water of the State and of the United States, through a submerged outfall and diffuser approximately 60 feet offshore, at depth of about 17.5 feet below mean lower low water (Location coordinates: 38 deg., 02 min., 55 sec. N. Latitude; 122 deg., 10 min., 56 sec. W. Longitude).

3. Wastewater is conveyed from the community by gravity to a 54,000 gallon capacity, baffled septic tank where the wastewater receives primary sedimentation. Septic tank effluent flows by gravity to a wet well where wastewater is mixed with treated wastewater at a ratio of about four or five parts treated wastewater to one part septic tank effluent. Mixed wastewater is pumped to a dosing structure which distributes the wastewater to sand/gravel filter beds. Filtered water is collected by underdrains and returned to a flow splitter box in the wet well. A portion of the treated wastewater flows over a V-notch weir into a contact chamber where it is chlorinated and dechlorinated before being discharged through the submerged outfall. The remainder of the treated wastewater is mixed with septic tank effluent and recirculated through the filter beds.

4. The discharger is presently governed by Waste Discharge Requirements in Order No. 89-166, adopted by the Board on September 20, 1989, which allows discharge to Carquinez Strait.

5. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986. The Basin Plan identifies beneficial uses and water quality objectives for surface waters in the region, as well as effluent limitations and discharge prohibitions intended to protect beneficial uses. This Order implements the plans, policies and provisions of the Board's Basin Plan.

6. The effluent limit for copper in this permit is based on 4.9 µg/l copper as an interpretation of the narrative toxicity objective in the Basin Plan, based on best professional judgement. Specifically, the use of 4.9 µg/l as the site-specific objective for copper is based on the Regional Board study that employed the "water effect ratio" approach developed by the EPA. This study and associated staff analysis are described in a September 25, 1992 staff report entitled "Revised Report on Proposed Amendment to Establish a Site Objective for Copper for San Francisco Bay".

7. It is the Board's intention to work towards controlling copper loadings to the San Francisco Bay Delta Estuary, such as through a regional copper wasteload allocation. This permit may be amended in the future to included specific copper mass loading limitations and loading reductions in accordance with an approved copper wasteload allocation.

8. Effluent limitations in this permit are based on the plans, policies, and water quality criteria of the Basin Plan, quality Criteria for Water (EPA 440/5-86-001, 1986; Gold Book), Applicable Federal Regulations (40 CFR Parts 122 and 131), the National Toxics Rule (57 FR 60848, 22 December 1992; NTR), and Best Professional Judgement. Due to the salinity in the salinity in the Carquinez Strait waters, effluent limitations for the discharge are based on marine water quality objectives as specified in the Basin Plan.

9. The beneficial uses of Carquinez Strait and adjacent waters identified in the Basin Plan include:

    1. Contact and Non-Contact Water Recreation
    2. Ocean Commercial and Sport Fishing
    3. Navigation
    4. Industrial Service Supply
    5. Fish Spawning and Migration
    6. Estuarine Habitat
    7. Wildlife Habitat
    8. Preservation of Rare and Endangered Species

10. Federal Regulations for stormwater discharges were promulgated by the U.S. Environmental Protection Agency on November 19, 1990. The regulations [40 Code of Federal Regulations (CFR) Parts 122, 123, and 124] require specific categories of industrial activity (industrial storm water) to obtain a NPDES permit and to implement Best Available technology Economically Available and Best Conventional Pollutant Control Technology to control pollutants in industrial stormwater discharges.

11. The discharger has not submitted a Storm Water Pollution Prevention Plan which describes industrial storm water discharges at the facility and storm water management controls. This Order requires that the discharger develop a Storm Water Pollution Prevention Plan. Board staff were informed that the storm water flows from the wastewater treatment facility process areas are directed offsite to Carquinez Strait. These storm water flows constitute all industrial storm water at this facility and consequently this permit regulates all industrial storm water discharge at this facility.

12. An Operation and Maintenance Manual is maintained by the Discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, facilities, recommended operation strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, the manual should be kept updated to reflect significant changes in treatment facilities.

13. This Order serves as an NPDES Permit, adoption of which is exempt from the provisions of Chapter three (commencing with Section 21100) of Division 13 of the Public Resources Code (California Environmental Quality Act) pursuant to Section 13389 of the California Water Code.

14. The Discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharge and have been provided an opportunity for a public hearing and the opportunity to submit their written views and recommendations.

15. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, that the Contra Costa Sanitation District No. 5 (Discharger) shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. Any bypass or overflow of untreated or partially treated wastewater to waters of the State, either at the treatment plant or from the collection system or pump stations tributary to the treatment plant, is prohibited.

2. The discharge of average dry weather flows greater than 0.033 million gallons per day is prohibited. Average dry weather flow shall be determined over three consecutive dry weather months each year.

3. Discharge of wastewater at any point where it does not receive a minimum initial dilution of 10:1 is prohibited.

4. Discharges of water, materials, or wastes other than storm water, which are not otherwise authorized by this NPDES permit, to a storm drain system or waters of the State are prohibited.

5. Storm water discharges shall not cause pollution, contamination, or nuisance.

B. EFFLUENT LIMITATIONS

1. The effluent discharged into Carquinez Strait shall not exceed the following limits:

Constituent	Units	Monthly Average	Weekly Average	Daily Maximum	Instantaneous Maximum
a. BOD_5, 20°C	mg/l	30	45	60	--
b. Total Suspended Solids	mg/l	30	45	60	--
c. Oil & Grease	mg/l	10	--	20	--
d. Settleable Matter	ml/l-hr	0.1	--	--	0.2
e. Chlorine Residual (1)	mg/l	--	--	--	0.0

Note: (1) Requirement defined as below the limit of detection in standard test methods defined in Standard Methods for the Examination of Water and Wastewater.

2. The pH of the discharge shall not exceed 9.0 nor be less than 6.0.

3. Total Coliform Bacteria: The treated wastewater, at some place in the treatment process prior to discharge, shall meet the following limits of bacteriological quality: The moving median value for the Most Probable Number (MPN) of total coliform bacteria in any five (5) consecutive samples shall not exceed 240 MPN/100 ml; and, any single sample shall not exceed 10,000 MPN/100 ml.

4. 85 Percent Removal, BOD and TSS: The arithmetic mean of the biochemical oxygen demand (five day, 20°C) and total suspended solids values, by weight, for effluent samples collected in each calendar month shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected at approximately the same times during the same period.

5. Toxic Substances Effluent Limitations: Representative samples of the effluent shall not exceed the following limits in micrograms per liter (µg/l): (1) (7)

Constituent		Monthly Average (2)	Daily Average (2)
1.	Arsenic		200
2.	Cadmium		30
3.	Chromium (VI) (3)		110
4.	Copper		37
5.	Lead (6)		53
6.	Mercury	0.21	1
7.	Nickel (6)		71
8.	Selenium (6)		50
9.	Silver		23
10.	Zinc (6)		580
11.	Cyanide (4)		25
12.	PAHs (5)	0.31	
13.	Phenol	500	

Notes:

(1) These limits are based on marine water quality objectives, and are intended to be achieved through secondary treatment and, as necessary, pretreatment and source control.

(2) Limits apply to the average concentration of all samples collected during the averaging period (Daily - 24-hour period; Monthly - Calendar month).

(3) The discharger may meet this limit as total chromium.

(4) The discharger may demonstrate compliance with this limitation by measurement of weak acid dissociable cyanide.

(5) Polynuclear Aromatic Hydrocarbons (PAHs). This limit applies to the summation of the detected levels of the individual PAHs. If a discharge exceeds this limit, the concentrations of individual constituents shall be reported.

(6) Effluent limitation may be met as a 4-day average. If compliance is to be determined based on a 4-day average, then concentrations of four 24-hour composite samples shall be reported, as well as the average of four.

(7) All analyses shall be performed using current USEPA Methods, as specified in "USEPA Water/Wastewater Method, (EPA-600 series). Detection limits, practical quantitative levels, and limits of quantitative will be taken into account in determining compliance with effluent limitations.

6. Acute Toxicity: Representative samples of the effluent shall meet the following limits for acute toxicity: (Provision E.5 of this Order applies to these bioassays.)

The survival of organisms in undiluted effluent shall be an eleven (11) sample median value of not less than 90 percent survival, and an eleven (11) sample 90 percentile value of not less than 70 percent survival. The eleven sample median and 90th percentile effluent limitations are defined as follows:

11 sample median: A bioassay test showing survival of less than 90 percent represents a violation of this effluent limit, if five or more of the past ten or less bioassay tests show less than 90 percent survival.

90th percentile: A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit, if one or more of the past ten or less bioassay tests show less than 70 percent survival.

C. RECEIVING WATER LIMITATIONS

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or which render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State anyone place within one foot of the water surface:

   a. Dissolved Oxygen — 7.0 mg/l, minimum

      The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause concentrations less than that specified above, then the discharge shall not cause further reduction in ambient dissolved oxygen concentrations.

   b. Dissolved Sulfide — 0.1 mg/l, maximum

   c. pH — Variation from normal ambient pH by more than 0.5 pH units.

   d. Un-ionized Ammonia — 0.025 mg/l as N, annual median
      0.16 mg/l as N, max.

e. Nutrients — Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

3. The discharge shall not cause a violation of any particular water quality standard for receiving waters adopted by the Board or the State Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

4. Storm Water Discharge

   a. Storm water discharges shall not adversely impact human health or the environment.

   b. Storm water discharges shall not cause or contribute to a violation of any applicable water quality objective for receiving waters contained in the Basin Plan.

D. SLUDGE MANAGEMENT PRACTICES

1. The only sludge generated at the treatment plant consists of septage which is pumped on occasion from the septic tank as part of the maintenance operation for optimal functioning. This septage is currently taken offsite to another treatment facility. If the discharger desires to dispose of the septage by a different method, a request for permit modification must be submitted to the USEPA and the Regional Board 180 days before start-up of the alternative disposal practice. All the requirements in 40 CFR 503 are enforceable by USEPA whether or not they are stated in an NPDES permit or other permit issued to the discharger.

2. Sludge treatment, storage, and disposal or reuse shall not create a nuisance, such as objectionable odors or flies, or result in groundwater contamination.

3. The discharge of sewage sludge shall not cause waste material to be in a position where it is, or can be carried from the sludge treatment and storage site and deposited in the waters of the State.

4. Permanent on-site sludge storage or disposal activities are not authorized by this permit. A report of Waste Discharge shall be filed and the site brought into compliance with all applicable regulations prior to commencement of any such activity by the discharger.

5. The Board may amend this permit prior to expiration if changes occur in applicable state and federal sludge regulations.

E. PROVISIONS

1. Requirements prescribed by this Order supersede the requirements prescribed by Order No. 89-166, which is hereby rescinded.

2. The Discharger shall comply with all sections of this Order immediately upon adoption.

3. This permit may be reopened to include a numeric mass loading limit for copper.

4. Where concentration limitations in mg/l or µg/l are contained in this Permit, the following Mass Emission Limitations shall also apply.

   (Mass Emission Limit in kg/day = (Concentration Limit in mg/l) x (Actual Flow in million gallons per day averaged over the time interval to which the limit applies) x 3.78 (conversion factor).

5. Compliance with Acute Toxicity Effluent Limitation

   a. Compliance with Effluent Limitation B.6 (Acute Toxicity) of this Order shall be evaluated by measuring survival of test fishes exposed to undiluted effluent for 96 hours in static bioassays. Two fish species will be tested concurrently. Each fish species represents a single bioassay.

   b. The two compliance species shall be as specified by the Executive Officer. One specie shall be three-spined stickleback, and the other shall be either rainbow trout or fathead minnow. Effluent used for fish bioassays must be undiluted, disinfected, dechlorinated effluent.

   c. The Executive Officer may consider allowing compliance monitoring with only one fish species (the most sensitive of the two), if the discharger can document that the acute toxicity limitation, specified above, has not been exceeded during the previous three years, or that acute toxicity has been observed in only one of two fish species.

   d. All bioassays shall be performed according to protocols approved by the USEPA or State Board, or published by the American Society for Testing and Materials (ASTM) or American Public Health Association.

6. Compliance With Toxic Substances Limitations

   1. The discharger shall comply with Effluent Limitations B.5 immediately upon adoption of this Order.

   2. Monitoring for PAHs shall be done using USEPA Method 610, or other analytical methods with comparable detection limits. The effluent limitation for PAHs is 0.31 µg/l, and is lower than the currently achievable detection limits (at reasonable cost to the discharger). Providing that the discharger is using acceptable analytical methods, and results indicate non-detectable concentrations, the discharger is considered to be in compliance with the effluent limitation.

7. The discharger shall submit a Storm Water Pollution Prevention Plan, acceptable to the Executive Officer, by November 1, 1995. This plan shall provide an assessment of the storm water flow patterns on site, and propose methods for achieving compliance with the Standard Storm Water Provisions.

8. The discharger shall review, and update as necessary, its Operations and Maintenance Manual, annually, or within 90 days of completion of any significant facility or process changes. The discharger shall submit to the Board, by April 15 of each year, a letter describing the results of the review process including an estimated time schedule for completion of any revisions determined necessary, and a description or copy of any completed revisions.

9. Annually, the discharger shall review and update as necessary, its Contingency Plan as required by Board Resolution 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or adequately implement a contingency plan will be the basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code. Plan revisions, or a letter stating that no changes are needed, shall be submitted to the Board by April 15 of each year.

10. The discharger shall implement a program to regularly review and evaluate its wastewater collection, treatment and disposal facilities in order to ensure that all facilities are adequately staffed, supervised, financed, operated, maintained, repaired, and upgraded as necessary, in order to provide adequate and reliable transport, treatment, and disposal of all wastewater from both existing and planned future wastewater sources under the discharger's service responsibilities. A Treatment Facilities Evaluation Program report discussing the status of this evaluation program, including any recommended or planned actions, shall be submitted to the Board by April 15 of each year.

11. The discharger shall implement a Storm Water Pollution Prevention Plan (SWPP Plan) in accordance with the "Standard Storm Water Provisions" in the attached Standard Provisions and Reporting Requirements. The SWPP Plan shall be reviewed and updated as appropriate by October 1, every year. Full compliance with the "Standard Storm Water Provisions" shall be an enforceable requirement of this permit.

12. The discharger shall comply with the Self-Monitoring Program for this order, as adopted by the Board and as may be amended by the Executive Officer.

13. The discharger shall comply with all applicable items of the attached "Standard Provisions and Reporting Requirements " dated August 1993, or any amendments thereafter.

14. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office. To assume operation of this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. (Refer to Standard Provisions, referenced above). The request must contain the requesting entity's full legal name, the address and telephone number of the persons responsible for contact with the Board and a statement. The statement shall comply with the signatory paragraph described in Standard Provisions and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code.

15. The Board may modify, or revoke and reissue, this Order and Permit if present or future investigations demonstrate that the discharge(s) governed by this Order are causing or significantly contributing to adverse impacts on water quality and/or beneficial uses of the receiving waters.

16. This Order expires on June 21, 2000. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 120 days before this expiration date as application for reissuance of waste discharge requirements.

17. This Order shall serve as a NPDES permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator, USEPA, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on June 21, 1995.

STEVEN R. RITCHIE
Executive Officer

Attachments:

A. Self-Monitoring Program
B. Standard Provisions and Reporting Requirements - August 1993
C. Standard Storm Water Provisions
D. Contingency Plan - Resolution 74-10

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

CONTRA COSTA COUNTY SANITATION DISTRICT NO. 5
PORT COSTA
CONTRA COSTA COUNTY

NPDES PERMIT NO. CA0037885

ORDER NO. 95-127

CONSISTS OF

PART A
(Self-Monitoring Program, Part A, NPDES Permits; dated August 1993.)

AND

PART B

SELF-MONITORING PROGRAM
PART B

FOR
CONTRA COSTA COUNTY SANITATION DISTRICT NO. 5

I. DESCRIPTION OF SAMPLING STATIONS

Station	Description
A. INFLUENT	
A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment, and exclusive of any return flows or process sides-streams.
B. EFFLUENT	
E-001	At a point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present. (May be the same as E-001-D).
E-001-D	At any point in the disinfection facilities for Waste E-001 at which adequate contact with the disinfectant is assured.
C. RECEIVING WATERS	
C-1	At a point in Carquinez Strait, located in the vicinity of the outfall discharge point, and accessible from the shoreline.
C-2	At a point in Carquinez Strait, located approximately 50 feet down current from the point of discharge, and accessible from the shoreline.
C-R	At a point in Carquinez Strait, located approximately 1000 feet up current form the point of discharge, and accessible from the shoreline.
D. LAND OBSERVATIONS	
P-1 thru P-'n'	Located at the corners and midpoints of the perimeter fence line surrounding the treatment facilities. (A sketch showing the locations of these stations will accompany each report).

E. OVERFLOWS AND BYPASSES

O-1 thru O-'n'	At points in the collection system including manholes, pump stations, or any other location where overflows or bypasses occur.
NOTES:	A map and description of each known overflow or bypass location shall accompany the Self Monitoring Report for each month.

II. SCHEDULE OF SAMPLING, MEASUREMENTS, AND ANALYSIS

A. The schedule of sampling, measurements and analysis shall be that given as Table I and Table I Footnotes.

B. Due to subsurface hazards in the receiving waters, receiving water samples may be taken from the shoreline using a 'pole-and-bucket' or by a similar technique.

III. REPORTING REQUIREMENTS

A. General Reporting Requirements are described in Section E of the Board's "Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits", dated August 1993.

B. A Self-Monitoring Report shall be submitted for each calendar month. The report shall be received no later than the 15th day of the following month. The required contents of these reports are described in Section F.4 of Part A.

C. An Annual Report shall be submitted for each calendar year. The report shall be submitted to the Board by February 15 of the following year. The required contents of these reports are described in Section F.5 of Part A.

D. Any overflow, bypass or significant non-compliance incident that may endanger health or the environment shall be reported in accordance with Sections F.1 and F.2 of Part A, and any additional reporting guidance as may be provided by Board staff. The date, time duration, location, estimated volume of wastewater discharged, and corrective actions taken for these events shall be reported in the monthly Self-Monitoring Reports.

E. Any removal of septage from the septic tank and other maintenance activities shall be reported in the monthly self monitoring reports. The location of septage disposal shall be identified.

IV. MODIFICATION OF PART A (AUGUST 1993)

A. This monitoring program does not include the following sections of Part A:

C.2.d; C.2.f; C.4; C.5; D.4; and E.3.

B. This monitoring program includes the following modifications of Part A:

Section F.5, Annual Reporting -- The first sentence is revised to read:

'The discharger shall submit to the Board an Annual Report for each calendar year, to be received no later than February 15 of the following year.'

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 95-127.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.

Effective Date: June 21, 1995

Steven R. Ritchie
Executive Officer

Attachment: Table I - Schedule for Sampling, Measurements and Analyses

TABLE 1
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS [1]

Sampling Station:	A-001		E-001			E-001-S		O	P	C
Type of Sample: **Parameter** (units) [notes]	C-24	Co	G	C-24	Co	C-24	G	Ob	Ob	Ob
Flow Rate (mgd) [2]					D					
BOD_5 (mg/L & kg/d) [9]	M			M						
Chlorine Residual (mg/L) [3]			3/W				3/W			
Settleable Matter (ml/L-hr)			M							
TSS (mg/L & kg/d) [9]	M			M						
Oil & Grease (mg/L & kg/d) [4], [9]			M							
Total Coliform (MPN/100 ml)							W			
Acute Toxicity (% Surv.) [5]						Q				
Ammonia Nitrogen (mg/L & kg/d) [6]						Q				Q
Nitrate Nitrogen (mg/L & kg/d)										
Nitrite Nitrogen (mg/L & kg/d)										
Total Organic Nitrogen (mg/L & kg/d)										
Turbidity (NTU)										
pH (units)			3/W				3/W			Q
D.O. (mg/L & % Sat)							3/W			Q
Temperature (° C)							3/W			Q
Apparent Color (color units)										
Total & Dissolved Sulfides (mg/L)										
Arsenic (µg/L & kg/d) [7]				Y						
Cadmium (µg/L & kg/d) [7]				Y						
Chromium IV (µg/L & kg/d) [7]				Y						
Copper (µg/L & kg/d) [7]				Y						
Cyanide (µg/L & kg/d) [7]				Y						
Silver (µg/L & kg/d) [7]				Y						
Lead (µg/L & kg/d) [7]				Y						

TABLE 1 (continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station:	A-001			E-001		E-001-S		O	P	C
Type of Sample: **Parameter** (units) [notes]	C-24	Co	G	C-24	Co	C-24	G	Ob	Ob	Ob
Mercury (µg/L & kg/d) [7]				Y						
Nickel (µg/L & kg/d) [7]				Y						
Selenium (µg/L & kg/d) [7]				Y						
Zinc (µg/L & kg/d) [7]				Y						
Phenols (µg/L & kg/d) [7]				Y						
PAHs (µg/L & kg/d) [7]				Y						
Applicable Standard Observations [8]								E	W	Q
Unionized Ammonia (mg/L as N)										

LEGEND FOR TABLE 1:

Types of Stations:

- A = treatment facility influent
- E = treatment facility effluent
- O = overflow and bypass points
- P = treatment facility perimeter
- C = receiving water

Types of Samples:

- C-24 = composite sample, 24 hours
- Co = continuous sampling
- G = grab sample
- Ob = observation

Frequency of Sampling:

- D = once each day
- W = once each week
- M = once each month
- Y = once each year
- Q = once each calendar quarter (with at least two month intervals)
- E = each occurrence
- 3/W = three times each week (on separate days)

FOOTNOTES FOR TABLE 1

[1] Bypass Monitoring. During any time when bypassing occurs from any treatment process (primary, secondary, chlorination, dechlorination, etc.) in the treatment facilities, the self-monitoring program shall include the following sampling and analyses in addition to the Table 1 schedule:

a. When bypassing occurs from any primary or secondary treatment unit(s), composite samples on an hourly basis for the duration of the bypass event for BOD and TSS analyses, grab samples at least daily for Settleable Matter and Oil and Grease analyses; and continuous monitoring of flow.

b. When bypassing the chlorination process, grab samples at least daily for Total Coliform analyses; and continuous monitoring of flow.

c. When bypassing the dechlorination process, grab samples hourly for chlorine residual; and continuous monitoring of flow.

[2] Flow Monitoring. Flows shall be measured continuously, and recorded and reported Daily. The following information shall also be reported, monthly:

Average Daily Flow	(mgd)
Maximum Daily Flow	(mgd)
Minimum Daily Flow	(mgd)

[3] Chlorine Residual concentrations and pH shall be monitored both prior to and following dechlorination.

[4] Each Oil and Grease sample shall consist of three grab samples taken at equal intervals during the sampling date, with each grab sample being collected in a glass container and analyzed separately. Results shall be expressed as a weighted average of the three values, based upon the instantaneous flow rates occurring at the time of each grab sample. Each glass container used for sample collection shall be thoroughly rinsed with solvent as soon as possible after use, and the solvent rinsing shall be added to the wastewater sample for extraction and analysis.

If the plant is not staffed 24 hours per day, then the three grab samples may be taken at approximately equal intervals during the period that the plant is staffed.

[5] Fish Toxicity shall be determined using parallel, 96-hour, static bioassays using 24-hour composite samples representative of the discharged effluent. One specie shall be three-spined stickleback, and the other shall be either rainbow trout or fathead minnow. Effluent used for fish bioassays must be undiluted, disinfected, dechlorinated effluent.

The bioassay water shall be tested for pH, Dissolved Oxygen and Temperature at the start of the bioassay, and then daily for the duration of the bioassay test (i.e. at 0, 24, 48, 72, and 96 hours from the start of the bioassay test).

[6] Ammonia Nitrogen shall be tested for on the same composite sample used for the bioassay.

[7] If any of these constituents are found in excess of the permit limits, then sampling and analysis for the constituents which exceed the permit limits shall be conducted weekly until compliance is demonstrated in two successive samples.

[8] Receiving water observations shall include only those contained in Items E.1.a., E.1.b., E.1.c., and E.3. of Part A (August 1993) of the Self-Monitoring Program. Perimeter observations shall include only E.5.a. (odors) of Part A of the same program.

[9] In the event that sampling once every month shows an apparent violation of the waste discharge permit 30-day average limitation (considering the result of one day's sampling as a 30-day average), then the sampling frequency shall be increased to weekly, so that a true 30-day average can be computed and compliance can be determined.